

KURALI, Ferencs

Comparison of the courses of geomagnetic elements on the
ground of the 1950-55 data measured by some observatories.
Geofiz kozl 7 no.2:101-109 '58.

S/048/60/024/008/004/017
B012/B067

AUTHORS: Volkova, L. M., Devyatov, A. M., Kuralova, A. V. E

TITLE: Excitation Cross Sections of Some Spectral Lines of
Krypton and Xenon H

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 8, pp. 950-952

TEXT: In the present paper the excitation cross sections are determined for 5 lines of krypton and 10 lines of xenon. The excitation curves were drawn by the method of photographic photometry. The electron gun consisted of a heated oxide cathode and three other electrodes. The measurements were made with 400 μ a. and are described in brief. Part of the data obtained for a series of lines of krypton and xenon was published in the papers (Refs. 3,4). In addition, the authors measured excitation curves of 4 lines of Kr II. They are shown in Fig. 1. Figs. 2 and 3 show the excitation curves of Kr I. Fig. 2 shows the curves drawn by the ordinary method and by the method of the electrical retarding

Card 1/2

Excitation Cross Sections of Some Spectral
Lines of Krypton and Xenon

S/048/60/024/008/004/017
B012/B067

field; they are in good agreement within the error limit. Besides, also the absolute values of the excitation cross sections of 5 lines of krypton and 10 lines of xenon (which are given in the papers of Refs. 3,4) were measured according to the method described in Ref. 5. These values are tabulated here. There are 3 figures, 1 table, and 5 Soviet references.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gos. universiteta im.
M. V. Lomonosova (Department of Physics of the Moscow
State University im. M. V. Lomonosov)

Card 2/2

RURALI, A.

Magyar Textiltechnika - No. 4, Apr. 1955.

Allocation and control of the utilization of subsidiary material at weaving mills.
p. 154.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

COUN. OF : USSR
 SUBJECT : Cultivated Plants, Grains. Lacustrine Grains.
 Tropical Cereals.
 ABST. JOURN.: Izv. Zhar-Biologiya, No. 3, 1959, No. 10254
 Author : Kozlov, V., Kuramshin, G.S.
 M. T. : Bashkir Affiliate Acad. Sci. USSR
 TITLE : Characteristics in the Formation of Yields
 in Different Corn Varieties.

ORIG. PUBL.: S. Kh. Bashkirii, 1957, No. 10, 33-35

SUMMARY : At the Botanical Garden of Bashkir Affiliate
 of the Academy of Sciences USSR a detailed
 study was made of the harvest formation in
 three corn varieties. Data are given on the
 overall produce, the yield of roughage and
 the percentage of cobs in the following
 stages: tasseling, flowering of the cobs,
 and milky and waxy stages of the grain. In
 Bashkiria the late ripening varieties guaran-
 tee the production of a high yield of vegeta-

CARD : 1/1

CULT. BODY : Cultivated Plants.

ABST. SOURCE : Red Star (Moscow), No. 5 : 1977, no. 20254

AUTHOR :

INSTR. :

TITLE :

ORIG. PUB.:

ABSTRACT : Five maize, the mid-season ripening varieties :
a high yield of roughage with a high percent-
age of cobs in the milky and milky-waxy
stages. --O.V. Yakushkina

CAL. NO: 2/2

KURAMSHIN, G. D., SAKHATDINOVA, S. M., NEMTSKAYA, S. V., and KOMAREV, V. G.
(USSR)

"Stages in the Metabolism of the Plants of Crop Raising."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

KURA SHI", G. S.

Dissertations defended at the Institute of Plant Physiology imeni V. A. Timiryazev for the academic degree of Candidate of Biological Sciences:

"Accumulation of Nucleic Acids and Other Phosphorus Compounds in the Formation of Corn Harvest."

Vestnik Akad Nauk, No. 4, 1963, pp. 116-145

PALKIN, G.A.; KURAMSAEV, T.V.; BATMANOV, B.I.; ZABOTIN, I., redaktor;
RAMZIN, Kh., spets. redaktor; SHARAFUTDINOVA, M., tekhnicheskii
redaktor

[House of farm crops on the collective farm] Dom sel'skokhoziaistven-
noi kul'tury v kolkhoze. Kazan', Tatgosizdat, 1952. 190 p. (MLRA 9:8)
(Agriculture--Study and teaching)

VALEYEV, Sh.V.; KURAMSHIN, T.V., red.; BLAGORAZUMOV, P.N., red.; TROFIMOVA,
A.S., tekhn. red.

[Obtaining high corn yields] Opyt polucheniia vysokikh urozhaev ku-
kuruzy. Pod red. T.V.Kuramshina. Kazan', Tatarskoe knizhnoe izd-
vo, 1959. 181 p. (MIRA 14:10)

(Corn (Maize))

DEMIDOVICH, A.F., prof., doktor sel'khoz. nauk; DEMIDOVICH, V.A., agronom;
KURAMSHIN, T.V., red.; SAGITOVA, S.G., tekhn. red.

[Seed potato production and its particular aspects in the Tatar
A.S.S.R.] Semenovodstvo kartofelia i ego osobennosti v Tatarskoi
ASSR. Kazan', Tatarakoe knizhnoe izd-vo, 1960. 110 p.
(MIRA 14:9)

(Tatar A.S.S.R.—Seed potatoes)

BATMANOV, B.I., agronom; KURAMSHIN, T.V., starshiy nauchnyy sotr.; PALKIN, G.A., kand. sel'khoz. nauk; BLAGOHAZUMOV, P.N., red.; SAGITOVA, S.G., tekhn. red.

[Experimental work on collective and state farms] Opytnaya rabota v kolkhozakh i sovkhozakh. Kazan', Tatarskoe knizhnoe izd-vo, 1960.
246 p. (MIRA 14:9)

1. Tatarskaya respublikanskaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Kuramshin).
(Agriculture--Experimentation)

Altshuler, Yu. S.

Dissertation: "An Appraisal of Yeast Cake in Bread Baking." Vuzh. Tekhn. Sci., Moscow
Technological Institute of the Food Industry, 28 Jun 54. (Voennoye Moskva, Moscow,
18 Jun 54.)

SO: SOA 313, 23 Dec 1954

KURAMSHIN, YU. N.

USSR/Chemical Technology - Chemical Products and Their Application. Fermentation Industry, I-27

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 63536

Author: Kuramshin, Yu. N., Auerman, L. Ya.

Institution: None

Title: Comparative Experimental Evaluation of Methods for Determining the Bread-Making Quality of Pressed Yeast

Original
Periodical: Tr. Mosk. tekhnol. in-ta pishch. prom-sti, 1956, No 4, 44-50

Abstract: Comparative study of 6 methods of evaluating the quality of pressed yeast: (1) Determination of leavening capacity of yeast according to GOST 171-51; (2) Same, according to time of a 4-fold rising of the dough in a pan to a definite height (Berlin method); (3) Same, according to the rising of a dough ball in water (method of A. I. Ostrovskiy); (4) Same, according to volume increase of dough in a measuring cylinder (Rostov method); (5) Determination of fermentation activity of yeast by gas formation in water-flour medium;

Card 1/2

USSR/Chemical Technology - Chemical Products and Their Application. Fermentation Industry, I-27

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 63536

Abstract: (6) Laboratory baking tests (volume and quality of the bread). The comparative studies were conducted with samples of wheat flour in 2 series of experiments: with a sample of second grade flour of medium bread-making quality and with samples of flour of various grades having different bread-making quality ratings. The first series of experiments showed that most sensitive methods are 4, 1, 3. Test samples of bread yielded no clearly defined results for evaluation of yeast quality. The second series of experiments showed the influence of bread-making properties of the flour on the indexes of yeast quality, which is especially pronounced on determination of leavening capacity according to methods 2 and 4. The same as in the preceding instance test samples of bread were found to be unsuited for an evaluation of yeast quality. On the basis of the data obtained it is recommended to use methods 1, 3, and 5 for evaluating the quality of the yeast.

Card 2/2

KURAMSHIN, Yu.N.; AUERMAN, L.Ya.; OSTROVSKIY, A.I.

Determining the baking quality of compressed yeast by the
rising of the dough ball to the surface of water. Trudy
MTIPP 4:51-53 '56. (MLRA 9:10)

(Yeast)

KURAMSHIN, Yu.N.

USSR/Chemical Technology - Chemical Products and Their
Application. Fermentation Industry.

I-12

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2813

Author : Mel'tser, I.A., Kuramshin, Yu.N., Lozenko, M.F.

Inst : -

Title : Results of the Growing of Yeast in Yeast-Growing Apparatus
Provided with Stationary and Revolving Air-Distributing
Systems

Orig Pub : Khlebopek. i konditersk. prom-st', 1957, No 7, 22-24

Abstract : Accretion of yeast at different degrees of aeration in-
creases on increase of the air supply from 5 to 20 m³/
hour. Further increase of the aeration results in a
decrease of the yields of yeast.

Card 1/1

SOV/112-59-3-5651

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 199 (USSR)

AUTHOR: Sokolov, A. G., and Kuramshin, Yu. N.

TITLE: Use of a Dilatometer for Thermocontrol in Automatic Water-Gauge Tanks
(Primeneniye dilatometra dlya termoregulirovaniya v avtovodomernykh
bachkakh)

PERIODICAL: Khlebopek. i konditersk. prom-st', 1958, Nr 2, pp 10-13

ABSTRACT: It is recommended that a dilatometer be used in thermostats and in automatic continuous mixers. To increase dilatometer sensitivity, a construction is suggested in which both the central invar rod and the outer tube are washed with water. Methods used and results of experiments using the dilatometer in tanks and mixers are described. Six illustrations.

B.A.K.

Card 1/1

ITSKOVICH, Ya.S.; SHPIGEL'GLYAS, A.S.; MEL'TSER, I.A.; KUPAMSHIN, Yu.N.

Apparatus of TsNIIKHP-L-1-58 make for the inspection of baker's
yeast quality. Trudy TSNIIKHP no.8:35-36 '60. (MIRA 15:8)
(Yeast--Testing) (Bakers and bakeries--Equipment and supplies)

MEL'TSER, I.A.; KURAMSHIN, Yu.N.; Primali uchastiye: LOZENKO, M.F.;
CHULINA, Ye.P.; BELOVA, L.D.

New types of foam fire extinguishers for yeast plants. Trudy
TSNIIKHP no.8:169-172 '60. (MIRA 15:8)
(Fire extinction--Chemical systems)

KURAMSHINA, M.G., kandidat biologicheskikh nauk

Antibiotic properties of kumiss microflora. Vest. AN Kazakh SSR
11 no. 8:81-85 Ag'55. (MLRA 9:1)
(Kumiss--Therapeutic use)

KURAMSHINA, Mari'yan Gumarovna

[Fermented milk products and their medicinal properties]
Kislomolochnye produkty i ikh lechebnye svoistva. Alma-Ata,
Akademiia nauk Kazakhskoi SSR, 1956. (MLBA 10:4)
(Milk, Fermented)

KURAMSHINA, M.G.; ABRAMOVA, N.V.

Antibacterial properties of Actinomyces no.15. Trudy Inst.mikrobiol.
i virus. AN Kazakh,SSR 1:46-49 '56. (MIRA 10:6)
(ACTINOMYCES) (BACTERIAL ANTAGONISM)

KURAMSHINA, M.G.

~~Effectiveness~~ of the yeasts and lactic acid bacteria of kumiss in
treating experimental tuberculosis. Trudy Inst.mikrobiol. i virus.
AN Kazakh.SSR 1:50-54 '56. (MLRA 10:6)
(KUMISS) (TUBERCULOSIS) (YEAST)
(LACTIC ACID BACTERIA)

KURAMSHINA, M.G.

Some data on the use of colibacterin. Trudy Inst.mikrobiol. i virus.
AN Kazakh.SSR 1:61-63 '56, (MIRA 10:6)
(ESCHERICHIA COLI) (DYSENTERY)

USSR / Pharmacology and Toxicology. Chemotherapeutic Agents.

V-10

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 80702

Author : Kuramshina, M. G.

Inst : The Institute of Microbiology and Virology, AS Kazakh SSR

Title : The Medicinal Effect of Products of the Vital Activity of Microflora of Koumiss on Patients with Tuberculosis

Orig Pub : Tr. In-ta mikrobiol. i virusol. AN KazSSR, 1958, 2, 189-195

Abstract : Forty-one patients with tuberculosis of the lungs were treated with filtered liquid cultures of yeasts and lactic acid bacteria strains isolated from koumiss. It was proven earlier (Tr. In-ta mikrobiologii i virusologii AN Kazakhskoy SSR, t. 1) that such filtrates are active in relation to the tuberculosis bacillus in vitro experiments and during experimentally-induced tuberculosis. The cultured liquids were obtained by means of cultivation during 5 days of active strains on sterile serum of mare's

Card 1/2

40

USSR / Pharmacology and Toxicology. Chemotherapeutic Agents.

V-10

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 80702

milk. I was given at 250 ml on an empty stomach for 1 hour before feeding (or meals). Average dose in a course 7.5-10 l. In addition, the patients received an additional 1.5 l of koumiss (II) a day, prepared under laboratory conditions with pure cultures of tested strains. On the average, during treatment, 45-60 l of laboratory koumiss was provided. As a control, patients were used having a single characteristic type of illness but were not subjected to the treatment (I and II). All of the patients were placed on a sanitary-hygienic regime. In 38 patients (of the number of those treated with I and II), a significant improvement was achieved, in 2 - partially, one patient was discharged. Short histories of the illnesses of 9 patients are cited.

Card 2/2

COUNTRY : USSR
 CATEGORY : Microbiology
 ABS. JOUR. : Ref Zhur-Biologiya, No. 4, 1959, No. 14946
 AUTHOR : Kuramshina, M.G., Olonskaya, V.V., Blonskaya, I.I.
 INST. : Inst. of Microbiology and Virology, Kazakh SSR
 TITLE : Streptomycin Resistance of Tubercle Mycobacteria with Intermittent Method of Treatment.

REG. PUB. : Tr. In-ta mikrobiol. i virusol. AN KazSSR, 1958, 2, 196-206

ABSTRACT : Patients (58) received 1g of streptomycin 2 times a week (intermittent method of therapy) on a background of PASA or tibon. For the entire course of treatment each patient received 16 - 24 g of streptomycin. A gradually increasing resistance of the isolated tubercle bacilli (TB) to streptomycin was noted during the treatment process. With effective treatment the TB isolated from patients were morphologically changed. The

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 development of str
 G. Ye. Frankina

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KURAMSHINA, M.G.

Antibacterial properties of kumias yeasts. Izv. AN SSSR. Ser. biol. no.5:584-591 S-O '58. (MIRA 11:10)

1. Institut revmatizma, G. Sochi.
 (KUMISS) (MYCOBACTERIUM TUBERCULOSIS)

GRIGOR'YEV, I.I., kand.med.nauk; SHIKHOVA, N.M., do.sent; KURAMSHINA, M.G.,
kand.biol.nauk

Elimination of streptococci in rheumatic fever. Vrach.delo no.6:585-
587 Je '59. (MIRA 12:12)

1. Sochinskiy nauchno-issledovatel'skiy institut revmatizma.
(RHEUMATIC FEVER) (STREPTOCOCCUS)

KURAMSHINA, M.G.; SHIKHOVA, N.M.; GRIGOR'YEV, I.I.; KONOKOVA, Ye.I.;
BABKINA, V.L.

Immunological indexes and the biological activity of streptococci
in the combined treatment of rheumatic fever. Vrach. delo no.9:20-
24 S '60. (MIRA 13:9)

1. Sochinskiy nauchno-issledovatel'skiy institut kurortologii.
(ANTIGENS AND ANTIBODIES) (STREPTOCOCCUS)
(RHEUMATIC FEVER)

KURAMSHINA, M.G.; SHIKHOVA, N.M.; KOLIKOVA, Ye.I.; BAEKINA, V.L.

Dynamics of immunological indices in rheumatic patients.

Kaz.med. zhur. 4:7-8 JI-Ag'63

(MIRA 17:2)

1. Mikrobiologicheskaya laboratoriya (zav. - starshiy nauchnyy sotrudnik M.G.Kuramshina), klinika kardiologii (zav. - dotsent N.M.Shikhova) i klinika aktivnogo revmatizma (zav.-prof. M.M.Shikhov) Sochinskogo instituta kurortologii.

KURAMSHINA BICHUMINA, N.Sh., ordinator

Endemic goiter in the western part of the [former] Shugurovo District
of the Tatar A.S.S.R. Kaz. med. zhur. no.6:68-70 N-D '61.

(MIRA 15:2)

1. Kafedra obshchey gigiyony (zav. - prof. V.V.Miloslavskiy [deceased])
Kazanskogo meditsinskogo instituta.
(LENINOGORSK DISTRICT (TATAR A.S.S.R.)--GOITER)

KURAMZHIN, A.V.; GORELOV, V.M., inshener, redaktor; DUGINA, N.A.
tekhnicheskiiy redaktor

[Planing] Stroganie. Pod red. V.M. Gorelova. 2-e izd. Moskva,
Oos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955. 32 p.
(Nauchno-populiarnaya biblioteka rabochego stanochnika, no.12).
(MIRA 8:7)

(Planing machines)

RABOTIN, A.N.; KUBAMZHIN, A.V., inzhener, rotsenzent; GORELOV, V.M., inzhener, redaktor; DUBINA, N.A., tekhnicheskii redaktor.

[Finishing machine parts] Chistovaia obrabotka detalei mashin. Pod red. V.M.Gorelova. 2-e izd. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 56 p. (Nauchno populiarnaya biblioteka rabochego stanochnika, no.9). (MIRA 8:5)
(Metals--Finishing)

KURAMZHIN, Aleksandr Valerianovich; GORELOV, V.M., inzh., red.; DUGINA,
N.A., tekhn.red.

[Planing] Stroganie. Izd.3. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry, 1959. 33 p. (Nauchno-populiarnaya biblio-
teka rabochego-stanochnika, no.13) (MIRA 13:2)
(Metal cutting)

GOLOSHIN, A.V., inch.

Improvement of the technology of the manufacture of chemical equipment in the Ural Chemical Machinery Plant. Khim.mash. no.1:35-39
Ja '59. (MIRA 12:7)
(Ural Mountain region--Chemical engineering--Equipment and supplies)

KURAMZHIN, A.V., inzh.

Raising the level of production organization. Khim. i nef't.
mashinostr. no.1:1-5 Ja '65. (MIRA 18:3)

KURAN, JOZEE.

Kajakiem z jezior augustowskich i mazurskich do Warszawy. Warszawa,
Sport i Turystyka, 1955. 147 p. By canoe from Augustow and Masurian
Lakes to Warsaw. illus., maps, bibl.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

KURAN, J., inz.

Conference on coal deposit draining in Bratislava. Unli
7 no.1:39-40 '65.

1. Banske projekty, Bratislava.

KURAN, J.

Tourist boating vacations in 1955. p. 6. TURYSTA. (Polskie Towarzystwo Turystyczno-Krajoznawcze) Warszawa. No. 3, Mar. 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress, Vol.4, no. 12, December 1955

KURANCHEV, M.I., starshiy nauchnyy sotrudnik; MOISEYEV, I.F.;
MAKAROV, V.A.

Forcing cement mixes behind the lining of railroad tunnels
without stopping the traffic. Transp.stroi. 10 no.8:
19-22 Ag '60. (MIRA 13:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut transportno-
go stroitel'stva (for Kuranchev). 2. Nachal'nik tunnel'no-
mostovogo otryada No.1 (for Moiseyev). 3. Nachal'nik
mostopoyezda No.57 (for Makarov).
(Tunnels--Maintenance and repair)

KURANCOWA 2

POL

Effect of streptomycin on *Brucella abortus*. Zofia Kuranowa (U.N.S. Med. Univ., Lodz, Poland) *Ann. Inst. Pasteur (Paris)* 1954, 46, 1-10 (English summary). - Streptomycin (100 mg/ml) was added to a 24-hour strain 34 showed that streptomycin I, a resistant strain, did not kill this strain. If grown on a medium containing 1% of a resistant strain will develop, which does not lose its resistance after 10 passages through agar free from I. Only increased doses of I will kill this resistant strain. Twenty five white mice were infected intraperitoneally with 0.1 and 0.5 ml of a suspension which is equiv. to one 675×10^6 bacteria in 1 ml of 9×10^6 ml, and 19 of these were treated with 50 mg of streptomycin I one hr. after the infection. The mice were killed 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 150, 180, 210, 240, 270, 300, 330, 360, 390, 420, 450, 480, 510, 540, 570, 600, 630, 660, 690, 720, 750, 780, 810, 840, 870, 900, 930, 960, 990, 1020, 1050, 1080, 1110, 1140, 1170, 1200, 1230, 1260, 1290, 1320, 1350, 1380, 1410, 1440, 1470, 1500, 1530, 1560, 1590, 1620, 1650, 1680, 1710, 1740, 1770, 1800, 1830, 1860, 1890, 1920, 1950, 1980, 2010, 2040, 2070, 2100, 2130, 2160, 2190, 2220, 2250, 2280, 2310, 2340, 2370, 2400, 2430, 2460, 2490, 2520, 2550, 2580, 2610, 2640, 2670, 2700, 2730, 2760, 2790, 2820, 2850, 2880, 2910, 2940, 2970, 3000, 3030, 3060, 3090, 3120, 3150, 3180, 3210, 3240, 3270, 3300, 3330, 3360, 3390, 3420, 3450, 3480, 3510, 3540, 3570, 3600, 3630, 3660, 3690, 3720, 3750, 3780, 3810, 3840, 3870, 3900, 3930, 3960, 3990, 4020, 4050, 4080, 4110, 4140, 4170, 4200, 4230, 4260, 4290, 4320, 4350, 4380, 4410, 4440, 4470, 4500, 4530, 4560, 4590, 4620, 4650, 4680, 4710, 4740, 4770, 4800, 4830, 4860, 4890, 4920, 4950, 4980, 5010, 5040, 5070, 5100, 5130, 5160, 5190, 5220, 5250, 5280, 5310, 5340, 5370, 5400, 5430, 5460, 5490, 5520, 5550, 5580, 5610, 5640, 5670, 5700, 5730, 5760, 5790, 5820, 5850, 5880, 5910, 5940, 5970, 6000, 6030, 6060, 6090, 6120, 6150, 6180, 6210, 6240, 6270, 6300, 6330, 6360, 6390, 6420, 6450, 6480, 6510, 6540, 6570, 6600, 6630, 6660, 6690, 6720, 6750, 6780, 6810, 6840, 6870, 6900, 6930, 6960, 6990, 7020, 7050, 7080, 7110, 7140, 7170, 7200, 7230, 7260, 7290, 7320, 7350, 7380, 7410, 7440, 7470, 7500, 7530, 7560, 7590, 7620, 7650, 7680, 7710, 7740, 7770, 7800, 7830, 7860, 7890, 7920, 7950, 7980, 8010, 8040, 8070, 8100, 8130, 8160, 8190, 8220, 8250, 8280, 8310, 8340, 8370, 8400, 8430, 8460, 8490, 8520, 8550, 8580, 8610, 8640, 8670, 8700, 8730, 8760, 8790, 8820, 8850, 8880, 8910, 8940, 8970, 9000, 9030, 9060, 9090, 9120, 9150, 9180, 9210, 9240, 9270, 9300, 9330, 9360, 9390, 9420, 9450, 9480, 9510, 9540, 9570, 9600, 9630, 9660, 9690, 9720, 9750, 9780, 9810, 9840, 9870, 9900, 9930, 9960, 9990, 10020, 10050, 10080, 10110, 10140, 10170, 10200, 10230, 10260, 10290, 10320, 10350, 10380, 10410, 10440, 10470, 10500, 10530, 10560, 10590, 10620, 10650, 10680, 10710, 10740, 10770, 10800, 10830, 10860, 10890, 10920, 10950, 10980, 11010, 11040, 11070, 11100, 11130, 11160, 11190, 11220, 11250, 11280, 11310, 11340, 11370, 11400, 11430, 11460, 11490, 11520, 11550, 11580, 11610, 11640, 11670, 11700, 11730, 11760, 11790, 11820, 11850, 11880, 11910, 11940, 11970, 12000, 12030, 12060, 12090, 12120, 12150, 12180, 12210, 12240, 12270, 12300, 12330, 12360, 12390, 12420, 12450, 12480, 12510, 12540, 12570, 12600, 12630, 12660, 12690, 12720, 12750, 12780, 12810, 12840, 12870, 12900, 12930, 12960, 12990, 13020, 13050, 13080, 13110, 13140, 13170, 13200, 13230, 13260, 13290, 13320, 13350, 13380, 13410, 13440, 13470, 13500, 13530, 13560, 13590, 13620, 13650, 13680, 13710, 13740, 13770, 13800, 13830, 13860, 13890, 13920, 13950, 13980, 14010, 14040, 14070, 14100, 14130, 14160, 14190, 14220, 14250, 14280, 14310, 14340, 14370, 14400, 14430, 14460, 14490, 14520, 14550, 14580, 14610, 14640, 14670, 14700, 14730, 14760, 14790, 14820, 14850, 14880, 14910, 14940, 14970, 15000, 15030, 15060, 15090, 15120, 15150, 15180, 15210, 15240, 15270, 15300, 15330, 15360, 15390, 15420, 15450, 15480, 15510, 15540, 15570, 15600, 15630, 15660, 15690, 15720, 15750, 15780, 15810, 15840, 15870, 15900, 15930, 15960, 15990, 16020, 16050, 16080, 16110, 16140, 16170, 16200, 16230, 16260, 16290, 16320, 16350, 16380, 16410, 16440, 16470, 16500, 16530, 16560, 16590, 16620, 16650, 16680, 16710, 16740, 16770, 16800, 16830, 16860, 16890, 16920, 16950, 16980, 17010, 17040, 17070, 17100, 17130, 17160, 17190, 17220, 17250, 17280, 17310, 17340, 17370, 17400, 17430, 17460, 17490, 17520, 17550, 17580, 17610, 17640, 17670, 17700, 17730, 17760, 17790, 17820, 17850, 17880, 17

KURANDO, B.B. (Gor'kiy)

Pneumotachography for studying the respiratory function. Klin.med.
35[i.e.34] no.1 Supplement:13 Ja '57. (MIRA 11:2)

1. Iz kliniki (zav. - prof. S.I.Ashbel') Gor'kovskogo nauchno-
issledovatel'skogo instituta gigiyeny truda i profbolezney (dir. -
kandidat meditsinskikh nauk O.M.Gavruseyko)
(RESPIRATION)

SOV/81-59-16-56923

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 137 (USSR)

AUTHORS: Kuranov, A.A., Sviridova, M.M.

TITLE: Determination of Palladium, Platinum, Gold, Lead, Bismuth, Antimony, Copper and Iron in Pure Silver and the Determination of Antimony, Bismuth, Lead and Iron in Silver-Copper Alloys

PERIODICAL: V sb.: Materialy 1-go Ural'skogo soveshchaniya po spektroskopii, 1956. Sverdlovsk, Metallurgizdat, 1958, pp 85-89

ABSTRACT: For analysis ready samples in the form of rods of 6 mm in diameter with butts of oval shape are used. The spectra are excited in an a-c arc discharge at 12 a with an arc gap of 2 mm and are photographed with a big KS-55 spectrograph at an exposure of 120 sec ("spectral" plates type II and III); the slit breadth of the spectrograph is 0.03 mm in the analysis of Ag and 0.02 mm in the analysis of Ag-Cu-alloys. The calibrating graphs are plotted in the coordinates $\lg(I_1/I_f)$, versus $\lg C$ without the background allowance. The error of the analysis is 10 - 20%. The standards are prepared by the fusion of the pure metals with the alloys with the introduction of corrections for the pollution of the base according to

Card 1/2

SOV/81-59-16-56923

Determination of Palladium, Platinum, Gold, Lead, Bismuth, Antimony, Copper and Iron in Pure Silver and the Determination of Antimony, Bismuth, Lead and Iron in Silver-Copper Alloys

the method of additions. For analysis the most sensitive lines of the elements are employed. For increasing the stability of discharge, the transformer of the activator is replaced by another transformer yielding a voltage of 6,000 - 8,000 v.

G. Kibisov.

Card 2/2

SOV/81-59-16-56919

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 136 (USSR)

AUTHORS: Kuranov, A.A., Ruksha, N.P.

TITLE: The Spectral Analysis of High Purity Gold

PERIODICAL: V sb.: Materialy 1-go Ural'skogo soveshchaniya po spektroskopii, 1956. Sverdlovsk, Metallurgizdat, 1958, pp 105-108

ABSTRACT: A sample of gold (0.2 g) is placed into the hollow of a carbon electrode which has near its operating end a tapered neck for reducing heat losses, and is fused to a metallic regulus in the course of 2 - 3 sec in the discharge of an a-c arc at 5 a. The exposure of the spectra with the upper carbon electrode is started at 5 a, after 15 sec the current intensity is reduced to 3 a continuing the exposure for another 15 sec; on the same place of the plate the spectra of a new gold sample are exposed. The spectra are photographed with a big KS-55 spectrograph; the analysis is carried out by the lines (in A): Ag 3280.6, Cu 3247.5, Bi 3067.7, Pb 2833.0, Sb 2598.0 and Fe 2598.3 with the application of the permanent graph. The reproducibility of the results of the analysis is within 5 - 15% depending on the element. The standards are prepared from gold of triple

Card 1/2

The Spectral Analysis of High Purity of Gold

SOV/81-59-16-56919

refining which does not show the lines of the elements to be determined. Specially prepared alloys with a high content of the above-mentioned elements are diluted with high purity gold by fusion in graphite crucibles under a layer of charcoal; the melt is treated by a HCl solution (1 ; 1) and rolled into a band from which batches are taken for preparing metallic reguli. The concentration of elements in standard alloys is determined chemically and spectrally by the analysis of solutions with allowance for residual pollution corrections on the basis of the results of the method of additions.

G. Kibisov.

Card 2/2

KURANOV, A.A.; RUKSHA, N.P.

Spectrum analysis of high-purity gold by absolute intensities
of analytical lines. Fiz.sbor. no.4:421-422 '58.

(MIRA 12:5)

(Gold--Spectra)

307/1959

PLATE I BOOK EXPLANATION

Ural'skiye sverkhbaniye po spektrovu

Materialy 2 Ural'skogo sverkhbaniya po spektroskopii, Sverdlovsk, 1958 g. (Materials of the Second Ural Conference on Spectroscopy, Held in Sverdlovsk, 1958) Sverdlovsk, Metallurgizdat, 1959. 206 p. Kireta slip in-verta. 1,000 copies printed.

Sponsoring Agency: Ural'skiy filial Akademi nauk SSSR. Komissiya po spektroskopii i Ural'skiy dom tekhniki VTI.

Ed.: Prof. Borisovich Zhayevich i G. G. Zhayevich (Sverdlovsk, Ural'skiy filial Akademi nauk SSSR, 1958).

PREFACE. This collection of articles is intended for research workers in the field of spectroscopy and for the metallurgical industry, geological and prospecting organizations, and similar scientific research laboratories.

CONTENTS. The collection contains papers read at the Second Ural Conference on Spectroscopy, held in Sverdlovsk, 1958. The collection contains articles on the spectral analysis of ferrous and nonferrous metals and alloys, slags, ores, agglomerates, refractories and other materials used in the metallurgical industry. The material of the conference includes articles on the analysis of steels (including the determination of gases), ferroalloys, refractories, and light metals and alloys, pure metals, and other materials. The volume is intended to disseminate the latest results of scientific research in the field of spectroscopy and to report on the work of scientific research laboratories, and to report on the work of scientific research laboratories. The author thanks N. I. Zhayevich and N. M. Zhayevich. Almost all of the articles are accompanied by references.

Editorial Board: Prof. Borisovich Zhayevich, Prof. G. G. Zhayevich, Prof. N. I. Zhayevich, and Prof. N. M. Zhayevich. Spectral Analysis of Silver-Copper Alloys from a Sample of Silver and of any Silver-Copper Alloy

116 Prof. A. A. I. Cherkasova, and V. D. Prokhorova. Methods of Preparation of Standards for the Spectral Analysis of Spontaneous Emission and Absorption

125 Prokhorova, V. D., A. D. Ostrov, N. M. Prokhorova, and V. D. Prokhorova. Spectral Method of Analyzing Refractory Metals and Alloys

130 Ostrov, N. I. Spectrochemical Analysis of High-Purity Antimony

135 Ostrov, N. I., and V. D. Prokhorova. Some Problems in the Spectral Analysis of Slags, Ores, and Agglomerates

140 Ostrov, N. I., V. D. Prokhorova, V. D. Prokhorova, and V. D. Prokhorova. Possibility of Using a Pulse Source for the Analysis of Slags and Agglomerates

145 Ostrov, N. I., and V. D. Prokhorova. Spectral Determination of the Content of Vanadium, Magnesium, and Calcium in Agglomerates by the Dilution Method

150 Ostrov, N. I., and V. D. Prokhorova. Determination of Titanium in Titanium Magnets and Slags by the Dilution Method

155 Ostrov, N. I. Spectral Analysis in the Refractories Industry

160 Ostrov, N. I. Investigation of Certain Characteristics of Vaporization and Absorption of Elements in Assays with Graphite Mixtures in the Spectral Analysis of Ores and Minerals

165 Ostrov, N. I. Effect of Certain Factors on the Intensity of Spectral Lines in the Noncombusting Powdered Assays

170 Ostrov, N. I., and V. D. Prokhorova. Spectrographic Determination of Manganese and Vanadium in Products of Ore Dressing

175 Ostrov, N. I. Application of Visual Spectroscopy Methods in the Analysis of Slags, Ores, and Minerals

180 Ostrov, N. I. Experience in Operating the Spectral Laboratory of the Geological Prospecting Party

185 Ostrov, N. I., V. D. Prokhorova, and V. D. Prokhorova. Spectral Determination of Calcium and Vanadium in Sublimates of Copper-Smelting Plants

190 Ostrov, N. I. Spectral Analysis of Saline and Alkaline Baths Used in the Heat Treatment of Steel Products

195 Ostrov, N. I. Low-Voltage Pulse-Discharge Generator for Emitting Spectra

200 Ostrov, N. I. Method of Taking Into Account Background and Imperfections in Practical Work at a Plant Spectral Laboratory.

205 Recommendations of the 2nd Ural Conference on Spectroscopy

KURAKOV, N. I.

KURANOV, A. A.

18(6)	PHASE I BOOK EXPLOITATION	307/3199
	Academy of Sciences USSR. Institut obshchey i neorganicheskoy khimii im. M. S. Kurnakova	
	Analiz blagorodnykh metallov (Analysis of Noble Metals). Moscow, 1959. 133 p. Errata slip inserted. 2,700 copies printed.	
	Resp. Ed.: M. K. Pabentitsyn, USSR Academy of Sciences, Corresponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical Sciences; Eds. of Publishing Houses: T. G. Levi, and D. N. Trifonov; Tech. Ed.: I. M. Guseva.	
	PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.	
	COVERPAGE: This is a collection of articles on the analysis of the noble metals. It includes studies carried out by the Institute of General and Inorganic Chemistry im. M. S. Kurnakov (AN SSSR), as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The studies and reports describe new organic reagents for gravimetric determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic, potentiometric). Special attention is given to the analytical methods for the determination of admixtures in alloys of platinum metals, silver, and gold, as well as refined noble metals. The collection also includes analytical methods, tables and charts for materials containing platinum metals of the analysis group, as well as a bibliography of the literature on the analysis of platinum metals published in the last five years. No personalities are mentioned. References follow each chapter.	
	Pabentitsyn, M. K., K. A. Gladyshevskaya and L. M. Kuranova. Use of the Ion Exchange Method in the Analysis of Platinum Metals. Report 2. Separation of Rhodium from Iridium	103
	Anisimov, M., Ye. I. Nikitina and V. M. Alenichikova. Methods of Preparing Four Industrial Solutions and Obtaining From Them Cemented Substances for the Determination of Platinum Metals by Spectral Analysis	115
	Therapy, V. P. Spectral Method for the Determination of Platinum, Palladium, and Tellurium in Silver-Gold Alloys	128
	Pabentitsyn, M. I. and A. D. Gutikova. Spectral Method of Analysis for Refined Iridium and Ruthenium	133
	Kuranov, A. A., M. P. Rukhlov and M. M. Sviridova. Spectral Determination of Mixtures in Gold, Silver and Alloys	139
	Kuranov, A. A. Spectral Analysis of Platinum Alloys Containing Three Components	143
	Adamskiy, A. P. and V. M. Karacilin. Determining the Chemical Composition of Binary Alloys by the Thermoelectromotive Force	145
	Yelov, V. B. Effect of Complexation and of the Acid-Alkali Balance in the Medium on the Potential of the Au ^{III} /Au ⁰ , Au ^I /Au ⁰ , Au ^{III} /Au ^I , and Ag ^I /Ag Systems	150
	Avilov, V. B. and V. V. Kosova. Chromatometric Determination of Gold	156
	Anisimov, S. M., V. M. Klypenkov and V. P. Tsvetkov. Spectrometric Method for the Determination of Silver in Silver and Lead Alloys Containing Platinum Metals	163
	Tufa, T. P. and M. A. Chentseva. Dissolving Platinum Metals and Their Alloys with the Aid of an Alternating Current	176
	Chentseva, M. A., T. P. Tufa and V. G. Lavian. New Method for the Analysis of Palladium-Silver Alloys	181
	Rushnikov, M. S. and K. S. Steina. Methods of Testing Palladium Alloys and Their Products on a Touchstone and by Chemical Means	184

24.(7)

SOV/48-23-9-40/57

AUTHOR: Kuranov, A. A.

TITLE: Methods of Setting Standards for the Spectral Analysis of Noble Metals

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1140 - 1143 (USSR)

ABSTRACT: In the first part of the present paper cast standards are dealt with. In the setting of standards for the determination of Pt, Pd, Au, Cu, Pb, Bi, Sb, and Fe in silver in concentrations 10^{-5} - $10^{-2}\%$ according to the phase diagram the solubility of these elements in silver must be evaluated. A total or a limited solubility of these elements in silver is observed, with the exception of iron. It may be assumed that the solubility of iron may be increased if it is introduced in form of an Fe-Pd-alloy. Thus, silver standards were produced, into which the iron is introduced in form of a palladium alloy (Pd:Fe=80:20). Besides gold, they also contained Pb-Pt, Bi-Cu, and Fe-Sb, also introduced in form of alloys (50:50). The melts of the standards were prepared in graphite crucibles in a high-frequency furnace so that good mixing was, at the same time, warranted. The composition of the standards was chemically checked. Also standards

Card 1/3

Methods of Setting Standards for the Spectral Analysis SOV/48-23-9-40/57
of Noble Metals

for the analysis of pure platinum and gold were set as well as for several alloys on a platinum, gold, and silver base. In the second part of this paper synthetic standards, set from metal powder, are dealt with. They were set by mixing metal powders in corresponding ratios, after which briquettes were pressed, which were then annealed immediately below the melting temperature of the base material (sintering process). The homogeneity of the distribution of the elements was checked spectroscopically or by means of the tracer method (with radioactive isotopes). Next, the corresponding methods of analyzing rhodium and iridium are dealt with. Further, titrated solutions of Al, Fe, Pb, Ni, Cu, Pt, Pd, Au and Ba are discussed, which are used for setting standards for the analysis of dissolved samples. Here the different solubility of individual elements manifests itself. Next, the salts are evaporated from the solutions and then pressed into briquettes. Setting standards from metal powders in a steel mold of 20 mm diameter followed by diffusion annealing at 1000°C in hydrogen is also discussed, after which standard solutions are dealt with, which are used

Card 2/3

Methods of Setting Standards for the Spectral
Analysis of Noble Metals

SOV/48-23-9-40/57

mainly for the control of cast and synthetic standards.
There are 2 figures, 1 table, and 9 references, 6 of which
are Soviet.

Card 3/3

20(5)

30V/32-25-5-43/56

AUTHORS:

Kuranov, A. A., Sviridova, M. M.

TITLE:

Synthetic Standard Samples for Spectrum Analysis of Silver
(Sinteticheskiye etalony dlya spektral'nogo analiza serebra)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 5, pp 624-625 (USSR)

ABSTRACT:

The preparation of cast samples for the spectrum analysis of precious metals with a precisely determined quantity of admixtures of elements with high melting points (as e.g. iridium or rhodium) is very difficult. In this case the use of metallo-ceramic samples is more convenient. In the present case samples of this type were prepared with Pt, Pd, Fe, Cu, Au, Al, Sb, Te, Pb, and Se in additional quantities of 10^{-5} to $10^{-2}\%$. The metallic powders were separated into fractions by suspension, and only fractions with particle sizes of some ten micra were used. After mixing thoroughly, briquets were pressed (height: 25 mm, diameter: 20 mm) and fritted at 300° in hydrogen atmosphere; afterwards they were pressed again and repeatedly fritted at 600 and 800° . At the temperatures mentioned Bi, Se, Al, Pb, Sb, and Te melt; the mobility of the atoms of the other elements also rises considerably whereby rather homogeneous samples are

Card 1/2

SOV/32-25-5-43/56

Synthetic Standard Samples for Spectrum Analysis of Silver

obtained. Graduation diagrams were plotted from the synthetic standard samples as well as from cast samples, and good agreement could be observed (Figs a,b). There are 2 figures and 2 Soviet references.

Card 2/2

KURANOV, A.A.; PONOMAREVA, V.D.; CHEMISOVA, N.I.

Spectral determination of impurities in iridium and rhodium. Zhur.
anal.khim. 15 no.4:476-480 J1-Ag '60. (MIRA 13:9)
(Iridium--Analysis) (Rhodium--Analysis)

S/137/61/000/011/045/123
A060/A101

AUTHORS: Klotsman, S. M., Kuranov, A. A., Ponomareva, V. D., Timofeyev, A. N.

TITLE: Utilization of radioactive isotopes for the homogeneity-control of metallo-ceramic standards used in spectral analysis of noble metals

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 27 - 28, abstract 113185 ("Radioact. izotopy i yadern. izlucheniya v nar. kh-ve SSSR. v. 3", Moscow, Gostoptekhzdat, 1961, 188 - 190)

TEXT: Standard specimens fabricated by the methods of powder metallurgy are used for the spectral analysis of noble metals for impurity content in the amounts of 10^{-2} - $10^{-6}\%$. Silver was used as the object investigated. Two extreme cases were analyzed: a) complete solubility of the impurity in the base (Ag in Ag) and a very low solubility (Fe in Ag). Powders of radioactive Ag^{110} (obtained by electrolysis) and Fe^{59} (with spherical particle shape) were used, with particle size 20 - 60 μ . Mixtures were prepared from inactive Ag with 0.01% Ag^{110} and with 0.03% Fe^{59} . After 14 hrs of mixing briquets were pressed from each mixture (diam. 20 mm, weight 20 - 25 g) at a pressure of 800 kg/cm². The specimens were sintered in a H₂ stream at various temperatures and baking times.

Card 1/2

Utilization of radioactive isotopes for...

S/137/61/000/011/045/123
A060/A101

Autoradiography was used for the quantitative estimation of the diffusion process. The optimal mixing duration was established. For the case of ideal solubility (Ag self-diffusion) it was demonstrated that the annealing time, sufficient to obtain the required uniformity, constituted 6 hours at 700 - 900°C.

I. Brokhlin

[Abstracter's note: Complete translation]

Card 2/2

S/048/62/026/007/010/030
B104/B138

24.671
AUTHOR: Kuranov, A. A.

TITLE: The mechanism of the spherical arc

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
v. 26, no. 7, 1962, 874-878

TEXT: Proceeding from a solution of the second Fick equation, two formulas are derived for the ratio of the integral emission intensities of two substances, the vapors of which form a spherical arc. In deriving the first formula, only diffusion from the internal to the external zones of the spherical arc is assumed, while for the second formula, convection and reabsorption in the arc plasma are also assumed. JB

Card 1/1

KURANOV, A. A.
Shershevskiy, A. A.

105

PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skiye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960. Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTD.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

Materials of the Third Ural Conference (Cont.)	SOV/6181
Kuranov, A. A., and N. P. Ruksha. Spectral determination of impurities in platinum	91
Sin'kov, N. A. Examination of some variants of calculating unknown impurity concentrations by the "additives" method	93
Fishman, I. S., and F. K. Sattarova. Chemical-spectral determination of carbides and intermetallic compounds in nickel alloys	99
Sukhenko, K. A., V. S. Grigor'yeva, I. S. Lindstrem, N. S. Sventitskiy, and P. P. Galonov. Methodology for spectral determination of oxygen in titanium and its alloys	101
Popov, B. V. Use of spectral analysis at the Ural Automobile Plant	102
Shlepko, Z. I. Determination of phosphorus in copper alloys with the CT-7 stylometer	104
Card 8/15	

KURANOV, A. A.

110

PHASE I BOOK EXPLOITATION

80V/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.
Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

Card 1/15

Materials of the Third Ural Conference (Cont.)

110
SOV/6181

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

TABLE OF CONTENTS:

Foreword

3

PART I

Sherstkov, Yu. A., and L. F. Maksimovskiy. Investigation of the dependence of the total intensity of spectral lines on the concentration of elements in an arc-discharge plasma

4

Card 2/15

Materials of the Third Ural Conference (Cont.) 80V/6181

Kuranov, A. A., and N. P. Ruksha. Spectral determination of impurities in platinum	91
Sin'kov, N. A. Examination of some variants of calculating unknown impurity concentrations by the "additives" method	93
Fishman, I. S., and F. K. Sattarova. Chemical-spectral determination of carbides and intermetallic compounds in nickel alloys	99
Sukhenko, K. A., V. S. Grigor'yeva, I. S. Lindstrom, N. S. Sventitskiy, and P. P. Galonov. Methodology for spectral determination of oxygen in titanium and its alloys	101
Popov, B. V. Use of spectral analysis at the Ural Automobile Plant	102
Shlepko, Z. I. Determination of phosphorus in copper alloys with the CT-7 stylometer	104

Card 8/15

ACC NR: ARG029501

SOURCE CODE: UR/0137/66/000/006/1026/1026

AUTHOR: Mishin, D. D.; Dunayev, F. N.; Shmel'kov, A. P.; Rodnevskiy, L. A.; Mityushev, V. A.; Kuranov, A. A.; Yevdokimova, L. A.

TITLE: Effect of plastic deformation and heat treatment on the magnetic anisotropy of a cobalt-platinum alloy

SOURCE: Ref. zh. Metallurgiya, Abs. 61176

REF SOURCE: Uch. zap. Ural'skogo un-ta. Ser. fiz., vyp. 1, 1965, 60-63

TOPIC TAGS: plastic deformation, magnetic anisotropy, cobalt containing alloy, platinum containing alloy, ordered alloy

TRANSLATION: A study was made of the effect of plastic deformation and heat treatment on the magnetic anisotropy of a Co-Pt alloy, having a nearly equiatomic composition. From the curves of mechanical moments presented for samples with different deformations, it followed that with an increase in the amount of deformation a sharper definition of magnetic biaxiality occurred, and an asymmetry of the rotational moment diagrams was found relative to the axis of the angles. After an optimum heat treatment (heating to 1000°C and holding 3 hr and ordering at 600°C for 1.5 hr), the magnetic anisotropy almost disappeared. However, as evident in the described demagnetization and magnetic energy diagrams, magnetic anisotropy was present after the ordering of cold rolled samples. (From *RZh. Fiz.*).

SUB CODE: 11
Card 1/1

UDC: 669.255'231:538.22

ACC NR: AP7005132

SOURCE CODE: UR/0126/66/022/004/0563/0568

AUTHOR: Parfenov, V. V.; Mulyukov, Kh. Ya.; Kuranov, A. A.; Klyuyeva, I. B.

ORG: Ural State University im. A. M. Gor'kiy (Ural'skiy gosuniversitet)

TITLE: Effect of dimensions of the specimen on the formation of magnetic properties in the cobalt-platinum alloy

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 4, 1966, 563-568

TOPIC TAGS: cobalt alloy, platinum alloy, magnetic coercive force, magnetic susceptibility

ABSTRACT: When in high-coercive state, Co-Pt alloys form a fine-disperse two-phase system, which accounts for their high coercive force and magnetic energy. The principal factors in the effect of such a structure of the alloy on its magnetic properties must be: the nature of the phases formed, their amount, shape and pattern of distribution. If that is so, then the variation in the magnetic characteristics of these alloys during the various regimes of their heat treatment must follow the same laws as in the case of pressed ferromagnetic powders with change in their nature, size, packing density, etc. To further elucidate this nature of the magnetic properties of these alloys, the authors investigated the effect of sheet (1 to 10^{-3} mm).

Card 1/2

UDC: 546.3-19'73'92:538.22

ACC NR: AP7005132

thickness and wire diameter (diameter 1 to $2 \cdot 10^{-2}$ mm) on the processes of magnetization and magnetization reversal following various types of thermomechanical treatment (quenching, tempering at 600, 630, 650, 700 and 750°C for 1 hr, rolling). The principal magnetic characteristics were measured in an electromagnet in fields of up to 20,000 oe at 77 and 300°K with the aid of a high-sensitivity magnetometer. Findings: following quenching coercive force is low (~ 10 oe) and magnetization saturation is maximal (~ 720 gauss). The smaller the thickness of the specimen the higher the coercive force is, and the lower the initial susceptibility is. With increase in tempering temperature coercive force initially increases until it reaches a peak ($\sim 630-680^\circ\text{C}$) after which it begins to decrease; for initial susceptibility an opposite pattern is observed. On the other hand, magnetization saturation steadily decreases with increase in tempering temperature. In specimens whose thickness is reduced by means of cold grinding or etching from 1 mm to $5 \cdot 10^{-2}$ mm (i. e. with conversion from three-dimensional to two- and one-dimensional cases) coercive force decreases and initial susceptibility increases. Thus the size of specimens (on transition from three-dimensional specimens to two- and one-dimensional cases) markedly affects the formation of magnetic properties of the Co-Pt alloy. It is presumed that the decrease in coercive force with decrease in thickness following optimal treatment is associated with the change in the dispersity of particles and in their magnetic interaction. "In conclusion the authors wish to express their appreciation to N. I. Solp'yev for preparing the specimens." Orig. art. has: 6 figures.

SUB CODE: 20, 13/ SUBM DATE: 14Sept65/ ORIG REF: 002/ OTH REF: 005

Card 2/2

KURANOV, I.V. [deceased]; SHEPELEV, I.M.; KURANOV, A.I.; TORNOV,
A.P., kand. tekhn. nauk, ratsenzent

[Automation of equipment for the manufacture of cables and
industrial rubber production] Avtomatizatsiia kabel'nogo i
rezinotekhnicheskogo oborudovaniia. Moskva, Mashinostroenie,
1965. 371 p. (FIRA 18.5)

GUDENCHUK, V. A.: MIKHAILOV, N. N.: PABOROV, I. M.: KURASHOV, A. N.

Coal

A practical method of drying fuel., Izv. VTI, 21, No. 1, 1952.

MONTHLY List of Russian Accessions, Library of Congress, April 1952. UNCLASS.

KURANOV, A. N.

AID P - 2329

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 10/17

Author : Kuranov, A. N., Eng.

Title : On an efficient method of pulverizing humid coal

Periodical : Teploenergetika, 5, 50-52, My 1955

Abstract : The article discusses means of drying brown coal with a high water content by gas or steam dryers. Tables showing the degree of humidity in the coal and data on drying are given. The author recommends gas-drying methods as being more economical.

Institution : ~~None~~ *Promenergoprojekt*

Submitted : No date

8(6)

SOV/112-59-3-4473

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 27 (USSR)

AUTHOR: Kuranov, A. N.

TITLE: Specifications on the Auxiliary Equipment of Boiler Plants for the Medium-Power Thermal Electric Stations (Trebovaniya k vspomogatel'nomu oborudovaniyu kotel'nykh ustanovok teplovykh elektrostantsiy sredney moshchnosti)

PERIODICAL: V sb.: Kotel'no-vspomogat. oborud. elektr. st. M., 1957, pp 34-38

ABSTRACT: Bibliographic entry.

Card 1/1

AUTHOR: Kuranov, A.N. (Engineer).
TITLE: Modern arrangement of large thermal electric power stations in the U.S.A. (Sovremennye komponovki krupnykh teplovykh elektrostantsiy S.Sh.A.).
PERIODICAL: "Teploenergetika" (Thermal Power), Vol.4, No.5, May, 1957, pp.48-58 (U.S.S.R.)
ABSTRACT:

The article first gives a brief review of power engineering developments in the U.S.A. since the war. In the U.S.S.R. designs are being prepared for large new power stations and, therefore, the layouts and the main structural and technological solutions adopted in modern American designs are of interest. For this reason the article considers three of the most typical American thermal power stations each with an installed capacity of over 1200 MW. The article then describes the Shawnee, Clifty Creek and the River Rouge power stations in the U.S.A. with particular reference to the general layout. The main turbine and steam conditions of a number of other stations are tabulated. The typical features of the technical solutions adopted in the U.S.A. are then discussed again with special reference to arrangement and construction. The tendency to reduce the dimensions of the main building as far as possible is noted. Mention is made of the practice of building large condensing power stations on navigable rivers.

Card 1/2

631

Modern arrangement of large thermal electric power stations in the U.S.A. (Cont.)

Outdoor or partially outdoor arrangements of equipment are beginning to be used in the U.S.A.; by this means the costs may be reduced from 3 to 5% but operation is undoubtedly more difficult and also possibly more expensive. There is, therefore, an opposite tendency in large power stations to construct them with less regard to first cost in order to ensure reliable and more economic operation. The advisability of using outdoor and semi-outdoor arrangements is evidently in dispute. The method of making the foundations is commented on. The architecture of the buildings is simple and devoid of decoration. In power station construction extensive use is made of reinforced concrete panels and also of panels consisting of thermal insulation contained between aluminium sheeting. The power station territories are very compact. 6 figures, no literature references.

Card 2/2

KURANDV, A N.

AUTHOR: Roddatis, K. F., Cand. Tech.Sc.

96-4-20/24

TITLE: A Scientific-Technical Conference on Auxiliary Equipment for Power Station Boiler-houses. (Nauchno-tekhnicheskoye soveshchaniye po kotel'no-vspomogatel'nomu oborudovaniyu elektrostantsiy).

PERIODICAL: Teploenergetika, 1958, . No.4, pp. 90-91 (USSR).

ABSTRACT: The second conference on auxiliary equipment for power station boiler-houses was held in Moscow from the 17th - 20th December, 1957. It was convened by the Moscow Division of the NTOEP and the Ministry of Electric Power Stations. The object was to generalise operating experience with boiler-house auxiliary equipment for large and medium power stations and to develop measures to increase the reliability and efficiency of the equipment; also to reduce house-service power consumption, to familiarise the conference participants with new designs of Soviet and foreign auxiliary equipment, and to formulate proposals for the development of new types of equipment. The Conference was attended by 350 representatives of State Planning organisations of various republics, councils of national economy, power stations, engineering works, Card 1/4 research and design institutes, colleges and other

96-4-20/24

A Scientific-Technical Conference on Auxiliary Equipment for
Power Station Boiler-houses.

organisations. Nineteen reports were read.

The Chief of the Technical Directorate of the Ministry of Power Stations A. M. Nekrasov, gave an opening address on the future development of thermal power stations, on the growth of unit outputs of sets, and on auxiliary equipment in boiler-houses.

Cand.Tech.Sc. K. F. Reddatis analysed the rate of development of boiler sets and reviewed the present state of production of boiler-house auxiliary equipment, criticising its efficiency.

Engineers G. H. Morozov and A. N. Kuranov reported on methods of reducing house-service power consumption. It was pointed out that a number of works, including the Venyukovskiy Works still did not always produce reliable equipment.

There were reports on the operation and design of fuel- and ash-handling systems. Dr.Tech.Sc. N. M. Mikhaylov described new types of equipment, particularly wagon tipplers.

Eng. P. M. Kuznetsov indicated the desirable features of ash-handling equipment for large power stations.

Card 2/4 Engineer N. I. Spiridonov analysed the mechanisation of

96-4-20/24

A Scientific-Technical Conference on Auxiliary Equipment for
Power Station Boiler-houses.

fuel-handling and ash-removal in medium-sized power stations. Reports by Cand.Tech.Sc. M. L. Kisel'gof and P. I. Kiselev, by Engineers Yu. G. Lazarev, I. M. Dianov, B. N. Muravkin and Cand.Tech.Sc. V. M. Maksimov all examined questions of fuel preparation.

Reports by Engineer V. V. Ryzhova and Cand.Tech.Sc. L.A. Rikhter considered the resistance of gas and air ducts in boiler installations and methods of regulating the output of draught fans.

Cand.Tech.Sc. V.B. Pakshver, reported foreign information on drives for feed pumps in large power stations.

The last group of reports dealt with fittings and with the removal of deposits from heating surfaces by devices operated from outside the furnace. The report of Engineer M. I. Imbritskiy and Cand.Tech.Sc. A. V. Ratner discussed damage to fittings and ways of enhancing their reliability by improved design. Reports on removal of ash and slag deposits were made by Engineers B. S. Fomin, V. I. Poluboyarinov and G. I. Lushnov.

Card 3/4 The discussion of the reports showed that the manufacturing

96-4-20/24
A Scientific-Technical Conference on Auxiliary Equipment for
Power Station Boiler-houses.

works are still not paying sufficient attention to auxiliary equipment. Most of the representatives of power stations mentioned defects therein. The Conference formally noted successes in the development of auxiliary equipment and a number of defects that require correction. Mention was made of the high cost of some kinds of equipment and the absence of catalogues. It was considered that many other organisations should have been represented at the Conference.

AVAILABLE: Library of Congress.

Card 4/4

SOV/96-59-5-3/19

AUTHOR: KURANOV, A.N., Engineer

TITLE: Steam Conditions, Types and Typical Sizes of Steam Turbines for Industrial Thermal Electric Power Stations (Parametry para, tipy i tiporazmery parovykh turbin dlya teplovykh promyshlennykh elektrostantsiy)

PERIODICAL: Teploenergetika, 1959, Nr 5, pp 17-21 (USSR)

ABSTRACT: Because of the extensive construction of regional power stations and power systems it is probable that for the next ten to fifteen years the main type of industrial power stations will be heat and electric power stations of medium output with turbines of 6 to 25 MW. These stations will cover the thermal load and will also generate electricity with a specific consumption of conventional fuel of 150 to 200 g/kWh. In large regional power stations the capital costs are less but the fuel consumption is greater unless heat is also supplied; there are, of course, transmission costs and losses. Nevertheless, where regional power systems are available, it will not be advisable to construct industrial power stations with fuel consumption greater than 300 g/kWh. Data about

Card 1/5

SOV/96-59-5-3/19

Steam Conditions, Types and Typical Sizes of Steam Turbines for
Industrial Thermal Electric Power Stations

variations in output and steam consumption for back-pressure turbines according to the stop-valve steam conditions are given in Table 1: the possibilities of increasing the unit output of turbines when the steam conditions are raised are made clear. It is evidently advisable to construct heat and electric power stations for high steam conditions, particularly when there is a considerable demand for process steam. When industrial power stations deliver steam for process purposes, it is usually required at two or more sets of conditions. The use of turbines with two pass-outs, or with one pass-out and back-pressure, then allows more electric power to be generated in conjunction with the heat supply. A number of examples are given to illustrate this point. A typical feature of current practice is the operation of condensing turbines of up to 25 MW with impaired vacuum, using the exhaust steam heat for district heating or hot water supply. At present steam conditions of 15 atm and 350°C and 35 atm and 435°C are widely used in communal and industrial small- and medium-output heat and electric

Card 2/5

SOV/96-59-5-3/19

Steam Conditions, Types and Typical Sizes of Steam Turbines for
Industrial Thermal Electric Power Stations

power stations. In such stations the use of steam at pressures of 90 and 130 atm is limited to a very small range of turbines. However, as the steam conditions are raised the amount of electricity that can economically be generated in conjunction with heat supply is greatly increased. Data about small- and medium-output back-pressure turbines installed in power stations in the Federal Republic of Germany are given in Table 2, showing a clear tendency to the use of higher steam conditions. With cross-compounded sets, it is particularly convenient to use higher steam conditions. It is most important for economical running that the pass-out or back-pressure steam conditions should correspond to the actual process requirements but unfortunately this condition is often not fulfilled with turbines made to the existing standard GOST-3618-58. The results, given in Table 3, of an analysis of the thermal load conditions at 50 heat and electric power stations in different branches of industry

Card 3/5

SOV/96-59-5-3/19

Steam Conditions, Types and Typical Sizes of Steam Turbines for
Industrial Thermal Electric Power Stations

show that 71% of the requirements fall in the range 3-8 atm and 25% in the range 8.5 to 18 atm. It is difficult to meet these requirements economically with the standard range of turbines; accordingly, the Bryansk and Leningrad Metal Works have been providing non-standard pass-out conditions in some of the turbines they produce. Under the circumstances, it would obviously be desirable to revise the standard. The existing standard pass-out and back-pressure steam conditions are tabulated in Table 4, together with three possible ways of amending the range; the variants are discussed and the third is considered the most suitable. Standard GOST-3618-58 provides a range of types and sizes of turbine for steam conditions of 35 atm and 435°C; 90 atm and 534°C and 130 atm and 565°C. This by no means meets the wide range of requirements of industrial power stations. A list of turbine types and sizes that should be added to the standard is given in Table 5. If these types were available it would be possible to simplify the present standard range. Existing types of turbines with pass-outs

Card 4/5

SOV/96-59-5-3/19

Steam Conditions, Types and Typical Sizes of Steam Turbines for
Industrial Thermal Electric Power Stations

for water heating provide for about 10% of the power generated from steam flowing to the condensers. It should be made possible to use some of the heat going to the condensers for heating system water when necessary. By easing the performance requirements on certain types of turbine it should be possible to make them much cheaper and lighter; a number of suggestions are made to this end. The effect of modifying the requirements will be seen from Table 6, which compares the weight of turbines type APT-12 made by the Kaluga Works (to the proposed new requirements) with turbines of the same type made by the Bryansk Works (to the old requirements). There are 6 tables.

ASSOCIATION: Promenergoprojekt

Card 5/5

KURANOV, A.N., inzh.

Modernization of old thermal electric power plants.
Teploenergetika 11 no.5:26-31 My'64. (MIRA 17:5)

1. Gosudarstvennyy soyuznyy proyektnyy institut po proyektirovaniyu
stroitel'stva promyshlennyykh teploelektrostantsiy dlya energosnab-
zheniya promyshlennyykh predpriyatiy v vseh otresley narodnogo
khozyaystva.

BOLOTIN, V.V., doktor tekhn.nauk, prof.; MAKAROV, B.P., kand.tekhn.nauk;
KURANOV, B.A., inzh.

Strength and rigidity of internal transformer windings.
Elektrichestvo no.4:54-58 Ap '64. (MIRA 17:4)

1. Moskovskiy energeticheskiy institut.

KURANOV, B.A., aspirant; MAKAROV, B.P., kand. tekhn. nauk

Stability of multilayer elastic rings under the action of a
uniform pressure. Izv. vys. ucheb. zav.; mashinostr. no.8:
49-57 '64. (MIRA 17:11)

1. Moskovskiy energeticheskiy institut.

BOLOTIN, V.V. (Moskva); KURANOV, B.A. (Moskva); MAKAROV, B.P. (Moskva)

Oscillations of circular transformer windings. Izv.AN SSSR.Energ.1
transp. no.4:86-90 J1-Ag '65. (MIRA 18:10)

KURANOV, G.O.

RX Aurgae. Astron.tsir no.213:17-18 J1 '60.

(MIRA 14:1)

1. Otdel peremennykh zvezd Vsesoyuznogo astronomo-geodezicheskogo
obshchestva.

(Stars, Variable)

KURANOV, G.O.

BP Cassiopeiae. Per.zvezdy 13 no.52381-382 Je '61.
(MIRA 15:8)

1. Otdel peremennykh zvezd Moskovskogo otdeleniya Vsesoyuznogo
astronomo-geodezicheskogo obshchestva.
(Stars, Variable)

TSVETKOV, V.I.; KURANOV, G.O.

Lyrids in 1961. Biul. VAGO no.33:7-8 '63. (MIRA 16:4)

1. Moskovskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo
obshchestva, meteornyy otdel.
(Meteors—April)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000927620002-3

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000927620002-3"

Kuranov, I. F.

EFROS, D.A.; KURANOV, I. F.

Boundary plane problem in the rise of bottom water. Trudy VNI
no.6:89-136 '54. (MLRA 9:1)
(Hydrodynamics) (Petroleum engineering)

KURANOV, I. F.

TSAREVICH, K.A.; KURANOV, I.F.

Computing the flow of the central well of a round-shaped oil pool
in the case of elastic drive. Trudy VNI no.8:9-34 '56.
(MLRA 9:12)

(Fluid dynamics) (Petroleum engineering)

SOV/93-58-12-9/16

14(5)

AUTHOR: Shekhtman, Yu.M., Kuranov, I.F., and Larin, A.A.

TITLE: Filtration in the Surrounding Zone of the Well During the Hydraulic Fracturing of Formations (Fil'tratsiya v prizaboynoy zone skvazhiny pri gidravlicheskom razryve plasta)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 12, pp 40-45 (USSR)

ABSTRACT: Yu. M. Shekhtman [Ref 1] presented a method for calculating the fluid influx into a sand-filled vertical fracture. The present article aims to verify and improve this method of calculation so as to facilitate its practical application. The authors take a vertical fracture which is symmetrically located in relation to the well and apply to it Shekhtman's formula for the condition at the end of the fracture. Assuming that $a = -c$ and $b = c$ they present the formula as follows

$$\frac{k'}{2} h \sqrt{x} = \begin{cases} \pm 2 \int_{-c}^x \sqrt{y} dx + q(-c) & (-c \leq x \leq 0, y = \pm 0), \\ \pm 2 \int_c^x \sqrt{y} dx - q(c) & (0 \leq x \leq c, y = \pm 0), \end{cases}$$

where k' is the permeability factor of the sand filler, k - the permeability factor of the formation, h - the width of the fracture, $2c$ - the length of the fracture, $q(-c)$ and $q(c)$ - the fluid consumption at the ends of the fracture per unit of its height, \sqrt{x} - the composite filtration rate along the ox axis, and \sqrt{y} - the composite filtration rate at the oy axis.

Card 1/5

Filtration in the Surrounding Zone (Cont.)

SOV/93-58-12-9/16

Next, they present Shekhtman's values of \sqrt{x} and \sqrt{y} as follows $\sqrt{x} = \frac{1}{a \sin \theta}$,

$$\sum_{n=2,4,6...}^{\infty} n A_n \sin n\theta, \text{ and } \sqrt{y} = \frac{Q}{2\pi c \sin \theta} - \frac{1}{a \sin \theta} x \sum_{n=2,4,6...}^{\infty} n A_n \cos n\theta, \text{ where } Q \text{ is}$$

the fluid consumption of the fracture per unit of its height, θ - the auxiliary variable, and A_n - the coefficients which are to be determined. In order to determine the coefficients A_n Shekhtman's formula for the condition at the end of the fracture is converted and presented as follows

$$\sqrt{x} = \begin{cases} \pm 2a \int_{-c}^x \sqrt{y} dx + \sqrt{x}(-c) & (-c \leq x \leq 0, y = \pm 0), \\ \pm 2a \int_c^x \sqrt{y} dx + \sqrt{x}(c) & (0 \leq x \leq c, y = \pm 0), \end{cases} \text{ where } a = \frac{1}{H}, \sqrt{x}(-c) = aq$$

(c). By substituting Shekhtman's values of \sqrt{x} and \sqrt{y} in the last formula, integrating, replacing the variable x by $c \cos \theta$ and dx by $-c \sin \theta d\theta$, and introducing the indices

Card 2/5

Filtration in the Surrounding Zone (Cont.)

$$T = \frac{1}{ac} = \frac{k'}{k} \frac{h}{e}, \quad m = \frac{h}{2}, \quad a_{2m} = \frac{A_{2m}}{Q}, \quad \text{and} \quad 2T \sum_{m=1}^{\infty} m^2 a_{2m} = U(T),$$

We obtain $\left[U(T) + \frac{\theta}{2\pi} - \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta \right] \sin \theta, \quad (0 \leq \theta \leq \frac{\pi}{2});$

$$\begin{cases} \left[U(T) - \frac{\theta}{2\pi} + \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta \right] \sqrt{\frac{\sinh \theta}{- \frac{\pi}{2} \leq \theta \leq 0}}; \\ \left[-U(T) - \frac{1}{2} + \frac{\theta}{2\pi} - \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta \right] \sin \theta, \quad (\frac{\pi}{2} \leq \theta \leq \pi); \\ \left[-U(T) - \frac{1}{2} - \frac{\theta}{2\pi} + \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta \right] \sin \theta, \quad (-\pi \leq \theta \leq -\frac{\pi}{2}). \end{cases}$$

Card 3/5

Filtration in the Surrounding

SOV/93-58-12-9/16

In these equations the coefficients a_{2m} which depend only on T are the unknown, and it is difficult to determine their values directly from the last equation. By expanding into Fourier series both sides of the last equation and comparing the coefficients at trigonometric functions of an angle with the same multiplicity we obtain an infinite system of equations of the following form

$$-I a_{2l} + \frac{32}{\pi^2} \sum_{m=1}^{\infty} m F(m+l) F(m-l) a_{2m} = \frac{8}{\pi^2} [F(l)]^2, \text{ where } l \text{ is}$$

the number of the equation ($l = 1, 2, 3, \dots$); and $F(x) = \frac{1}{4x^2 - 1}$.

. Assuming that the series in the equation agrees with regard to l the number of equations is limited to $l = 1, 2, \dots, s$ and to the same number of unknown a_{2m} ($m = 1, 2, \dots, s$). The system of equations thus obtained is linear and can be solved without too much difficulty (Fig.2). Knowing the value of the coefficients a_{2m} it is possible to calculate the velocity potential, pressure, and fluid consumption with the aid of Shekhtman's formulas. The results were verified experimentally on a radical unit consisting of a test chamber (Fig 3), vacuum chamber, and measuring instruments (Fig 4). The experimental results are presented graphically by Figs 5-7. It is suggested that the suffusion and silting of the filler sand can be eliminated by selecting sand of suitable properties [Ref 2]. The authors conclude that the theoretical data are in good

Card 4/5

Filtration in the Surrounding Zone (Cont.)

SOV/93-58-12-9/16

agreement with the experimental data and since the calculations were carried out with absolute values good agreement can also be expected in the theoretical and field data if the formation is uniform and the remaining properties are known. Therefore, this method for calculating the influx of fluid into vertical fractures is recommended for practical purposes. If the dimensions of the fractures are not measured directly, they can be obtained from the studies of S.A. Khristianovich, G. I. Barenblatt, and Yu. N. Zheltov [Ref 3-6]. The auxiliary graphs $a_{2m}(T)$ presented in this article simplify the calculation process so that it can be carried out in 1-2 hours. There are 7 figures and 6 Soviet references.

Card 5/5

KURANOV, I. F., EFROS, D. A., KUNDIU, S. A. (Moscow)

"On the Permeability of Two- and Three-Phase Systems and the Analysis of Flows of Liquid-Gas Aggregates."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

S/020/60/132/03/18/066
B014/B011

AUTHORS: Efros, D. A., Kuranov, I. F.
TITLE: Calculation of Flows of a Gassed Liquid in a Two-parametric Characteristic of Penetrabilities
PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 3, pp. 553-556

TEXT: Recent experimental results showed (Ref. 9) that the filtration of gas-saturated liquids can be much better described by a two-parametric dependence of the relative penetrabilities in the form $k_G/k = F_G(q, P^*)$ and $k_{Liq}/k = F_{Liq}(P^*, \lambda)$. k_G and k_{Liq} denote the penetrabilities for gas and liquid, k the initial penetrability, q the saturation of the liquid, $P^* = P/P_1$ (P_1 is the ingoing pressure) and $\lambda = \Gamma^*/S(P)$ ($S(P)$ and Γ^* are a solubility coefficient and a gas factor). The authors investigated the possibility of utilizing these two-parametric dependences for the construction of the flows. Several examples are offered. Steady flows are investigated first. From relation (1) the authors obtain the para-

Card 1/3

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S/020/60/132/03/18/066
B014/B011

meters of the flows, and one may observe from the calculation results graphically shown in Fig. 2 that an overestimating of the yield occurs in the one-parametric calculation. For the investigation of unsteady flows the authors proceed from the reduced equations (2) for plane radial flows. These equations have the same form as those, in which a one-parametric characteristic of penetrability is presupposed. The difference is merely in the fact that P^* contains the unknown function $P_k(t) = P(r, t)_{r=1}$. Satisfactory approximations are obtained here by successive changes in the steady states. Fig. 4 gives a graphical representation of a calculation of exhaustion processes. The results obtained show that the use of one-parametric characteristics for the penetrabilities entails an overestimating of the yield in the first period and an underestimating of the time of process. It is stated that the method described here adds no difficulties to the calculation. S. A. Khristianovich is mentioned. There are 4 figures and 10 references, 9 of which are Soviet.

Card 2/3

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S/020/60/132/03/18/066
B014/B011

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Card 3/3